

Summary of changes to LSA Document #09-7

- (1.) Effective date changed from 30 days after filing with the publisher to January 1, 2011
- (2.) 410 IAC 6-8.2-41 added “or chambers”
- (3.) 410 IAC 6-8.2-47 added “and a”
- (4.) 410 IAC 6-8.2-52(f) deleted “Soil” in “Soil Conservation Service” replaced with “Natural Resources”
- (5.) 410 IAC 6-8.2-52(f), Table I, changed “□” to “in.”
- (6.) 410 IAC 6-8.2-52(g) deleted “the effective date of this rule” replaced with “December 21, 1990”
- (7.) 410 IAC 6-8.2-56(a), Table II, footnote **** added “all” deleted “without a dispersal area”
- (8.) 410 IAC 6-8.2-57(c), Table III, added footnote ⁴ notation to “any slope: On-site system with perimeter drain”
- (9.) 410 IAC 6-8.2-57(c), Table III, footnote 4 deleted “54” added “63”
- (10.) 410 IAC 6-8.2-58(d) added “floodplain or”
- (11.) 410 IAC 6-8.2-59(o)(2)(B), changed “ASTM C 990” to “ASTM C 990-09”
- (12.) 410 IAC 6-8.2-59(p)(2)(A), deleted “;,” replaced with “, and”
- (13.) 410 IAC 6-8.2-59(p)(2), added new subsection (B): “be rated by the manufacturer with a daily flow rate of one and one-half (1 ½) times the total required septic tank capacity;”
- (14.) 410 IAC 6-8.2-59(p)(2)(B), changed “(B)” to “(C)”
- (15.) 410 IAC 6-8.2-60(c)(2), changed “ASTM C 1644” to “ASTM C 1644-06”
- (16.) 410 IAC 6-8.2-60(c)(3), changed “ASTM C 1644” to “ASTM C 1644-06”
- (17.) 410 IAC 6-8.2-62(a)(1)(A)(i), changed “ASTM D-2665” to “ASTM D 2665-09”
- (18.) 410 IAC 6-8.2-62(a)(1)(A)(i), changed “ASTM-F891” to “ASTM F 891-10”
- (19.) 410 IAC 6-8.2-62(a)(1)(A)(iii), changed “ASTM-D 3034” to “ASTM D 3034-08”
- (20.) 410 IAC 6-8.2-62(a)(1)(B)(i), changed “ASTM-D 2661” to “ASTM D 2661-08”
- (21.) 410 IAC 6-8.2-62(a)(1)(B)(ii), changed “ASTM-D 2680” to “ASTM D 2680-01(2009)”
- (22.) 410 IAC 6-8.2-62(a)(1)(B)(iii), changed “ASTM-D 2751” to “ASTM D 2751-05”
- (23.) 410 IAC 6-8.2-62(a)(2)(A)(i), changed “ASTM-D 2241” to “ASTM D 2241-09”
- (24.) 410 IAC 6-8.2-62(a)(2)(A)(ii), changed “ASTM-D 1785” to “ASTM D 1785-06”
- (25.) 410 IAC 6-8.2-62(a)(2)(A)(ii), changed “ASTM-D 1785” to “ASTM D 1785-06”
- (26.) 410 IAC 6-8.2-62(a)(2)(B)(i), changed “ASTM-D 1527” to “ASTM D 1527-99(2005)”
- (27.) 410 IAC 6-8.2-62(a)(2)(B)(ii), changed “ASTM-D D 2282” to “ASTM D 2282-99(2005)”
- (28.) 410 IAC 6-8.2-62(e)(1)(C), changed “ASTM-D 2729-89” to “ASTM D 2729-03”
- (29.) 410 IAC 6-8.2-62(e)(1)(C), changed “ASTM F810-85” to “ASTM F810-07”
- (30.) 410 IAC 6-8.2-62(e)(2)(C), changed “ASTM D 2729” to “ASTM D 2729-03”
- (31.) 410 IAC 6-8.2-62(e)(2)(D), changed “ASTM F 810” to “ASTM F 810-07”
- (32.) 410 IAC 6-8.2-62(f)(1), changed “ASTM C412” to “ASTM C 412-05a”
- (33.) 410 IAC 6-8.2-62(f)(2), changed “ASTM C4” to “ASTM C 4-04(2009)”
- (34.) 410 IAC 6-8.2-62(f)(3), changed “ASTM 498” to “ASTM 498-95”

- (35.) 410 IAC 6-8.2-63(b)(3), deleted “tile” replaced with “pipe”
- (36.) 410 IAC 6-8.2-63(b)(4)(A), added “when a four (4) inch drain pipe is used”
- (37.) 410 IAC 6-8.2-63(b)(4), added a new subsection (B), “have a positive slope of at least one-tenth (0.10) feet per one hundred (100) feet when a six (6) inch drain pipe is used,”
- (38.) 410 IAC 6-8.2-63(b)(4)(B), changed “(B)” to “(C)”
- (39.) 410 IAC 6-8.2-63(b)(5)(A), added “aggregate which meets the minimum requirements of section 67 of this rule,” deleted “or”
- (40.) 410 IAC 6-8.2-63(b)(5)(B), added “aggregate which meets the minimum requirements of section 67 of this rule,” deleted “or”
- (41.) 410 IAC 6-8.2-63(b)(6)(A), added “aggregate which meets the minimum requirements of section 67 of this rule,” deleted “or”
- (42.) 410 IAC 6-8.2-63(b)(6)(B), added “aggregate which meets the minimum requirements of section 67 of this rule,” deleted “or”
- (43.) 410 IAC 6-8.2-63(b)(7), deleted “The aggregate used as backfill in the perimeter, interceptor, or segment drain trenches described in subdivisions (4) and (5) shall be covered with a geotextile fabric barrier which meets the minimum requirements in section 66 of this rule, in such a manner as to prevent the aggregate from becoming clogged with the earth fill.”
- (44.) 410 IAC 6-8.2-63(b), added a new subsection (8): “The aggregate used as backfill in the perimeter, interceptor, or segment drain trenches described in subdivisions (5B) and (6B) shall be covered with a geotextile fabric barrier which meets the minimum requirements in section 66 of this rule, in such a manner as to prevent the aggregate from becoming clogged with the earth fill.”
- (45.) 410 IAC 6-8.2-63(b)(8), deleted “(8)”, replaced with “(9)”
- (46.) 410 IAC 6-8.2-63(d), added a new subsection (3), “Spacing of subsurface perimeter drains and segment drains installed parallel to the long axis of a soil absorption field must be less than or equal to sixty-five (65) feet, unless a greater spacing is determined through calculations.”
- (47.) 410 IAC 6-8.2-64(f), deleted “daily average wastewater volume” replaced with “dose volume required by this rule for each type of soil absorption field”
- (48.) 410 IAC 6-8.2-64(g), deleted “or” added “, 75(t) or 75(dd)”
- (49.) 410 IAC 6-8.2-64(j), added “floodplain or”
- (50.) 410 IAC 6-8.2-66(a)(1), deleted “, with openings equivalent to a seventy (70) to one hundred (100) sieve size”
- (51.) 410 IAC 6-8.2-66(a)(2)(A), changed to subsection (F), added “Mullen” deleted “strength of twenty-five (25)” added “equal to or greater than one hundred forty-five (145)” deleted “or more”.
- (52.) 410 IAC 6-8.2-66(a)(2)(C), deleted subsection (C), “A hydrophilic surface reaction to water.”
- (53.) 410 IAC 6-8.2-66(a)(2), added a new subsection (A): “A weight equal to or greater than three and one-tenth (3.1) ounces per square yard.
- (54.) 410 IAC 6-8.2-66(a)(2), added a new subsection (B): “A grab tensile strength equal to or greater than eighty (80) pounds.”
- (55.) 410 IAC 6-8.2-66(a)(2), added a new subsection (C): “A grab tensile elongation less than or equal to fifty percent (50%).”
- (56.) 410 IAC 6-8.2-66(a)(2), added a new subsection (D): “A trapezoid tear strength equal to or greater than thirty (30) pounds.”
- (57.) 410 IAC 6-8.2-66(a)(2), added a new subsection (E): “A puncture resistance equal to or greater than thirty (30) pounds.”

- (58.) 410 IAC 6-8.2-66(a)(2), added a new subsection (G): "A permittivity of less than or equal to 2.2 sec^{-1} ."
- (59.) 410 IAC 6-8.2-66(a)(2), added a new subsection (H): "A water flow rate less than or equal to one hundred fifty (150) gallons per minute per square foot."
- (60.) 410 IAC 6-8.2-66(a)(2), added a new subsection (I): "A UV resistance at five hundred (500) hours equal to or greater than seventy percent (70%) strength retained."
- (61.) 410 IAC 6-8.2-68(f)(2), added "floodplain or"
- (62.) 410 IAC 6-8.2-69(5), added "of greater than thirty-five percent (35%) by volume" deleted "have the following:" added "the soil fraction that is less than two (2) mm in size must be:"
- (63.) 410 IAC 6-8.2-69(5)(A), deleted "the clay content is less than twenty-seven percent (27%), the coarse fragments must be less than thirty-five percent (35%) by volume." replaced with "a texture finer than loamy sand, and"
- (64.) 410 IAC 6-8.2-69(5)(B), deleted "If the" added "less than 35 percent (35%)" deleted "is greater than or equal to twenty-seven (27%), the coarse fragments must be less than fifty percent (50%)"
- (65.) 410 IAC 6-8.2-69(6), deleted "in"
- (66.) 410 IAC 6-8.2-71(5), added "of greater than thirty-five percent (35%) by volume" deleted "proposed trench bottom" added "ground surface" deleted "have the following:" added "the soil fraction that is less than two (2) mm in size must be:"
- (67.) 410 IAC 6-8.2-71(5)(A), deleted "the clay content is less than twenty-seven percent (27%), the coarse fragments must be less than thirty-five percent (35%) by volume." replaced with "a texture finer than loamy sand, and"
- (68.) 410 IAC 6-8.2-71(5)(B), deleted "If the" added "less than 35 percent (35%)" deleted "is greater than or equal to twenty-seven (27%), the coarse fragments must be less than fifty percent (50%)"
- (69.) 410 IAC 6-8.2-71(6), deleted "proposed trench bottom" added "ground surface"
- (70.) 410 IAC 6-8.2-72(a)(3), deleted "within" replaced with "in the first" deleted "of" replaced with "below"
- (71.) 410 IAC 6-8.2-72(r), added "prior to installation"
- (72.) 410 IAC 6-8.2-73(a)(3), deleted "within" replaced with "in the first" deleted "of" replaced with "below"
- (73.) 410 IAC 6-8.2-73(q), added "prior to installation"
- (74.) 410 IAC 6-8.2-73(v), added "highest point in the force main or the" added "whichever is the highest elevation"
- (75.) 410 IAC 6-8.2-73(z), Table IX, replaced "□" with "in."
- (76.) 410 IAC 6-8.2-74(a)(3), deleted "within" replaced with "in the first" deleted "of" replaced with "below"
- (77.) 410 IAC 6-8.2-74(c), deleted "flood dosed", replaced with "alternating"
- (78.) 410 IAC 6-8.2-74(k), deleted "flood dosed absorption fields", replaced with "alternating systems"
- (79.) 410 IAC 6-8.2-74(t), added "prior to installation"
- (80.) 410 IAC 6-8.2-75(a)(3), deleted "within" replaced with "in the first" deleted "of" replaced with "below"
- (81.) 410 IAC 6-8.2-75(o), added "prior to installation"
- (82.) 410 IAC 6-8.2-75(ee), changed "hold" to "hole"
- (83.) 410 IAC 6-8.2-76(c)(2), replaced Figure 1 with new, cleaner graphic which better represents the technology
- (84.) 410 IAC 6-8.2-77(h)(1), added "The soil loading rate used for this computation shall be the soil loading rate of the most restrictive horizon in the first twenty (20) inches below the ground surface."
- (85.) 410 IAC 6-8.2-78(4)(E)(iv), added "end of each" added "with the" deleted "s closest to" added "at" added "lateral" deleted "aggregate bed"

- (86.) 410 IAC 6-8.2-78(4)(E)(iv), replaced Figure 2 with new, cleaner graphic which better represents the technology
- (87.) 410 IAC 6-8.2-82(c)(1) added "prior to installation"
- (88.) 410 IAC 6-8.2-86(a)(1) added "." Deleted "a" added "A"
- (89.) 410 IAC 6-8.2-87, added a new subsection (c)
- (90.) 410 IAC 6-8.2-87(d), deleted "(c)" replaced with "(d)"
- (91.) 410 IAC 6-8.2-87(d), replaced "ASTM C 990" with "ASTM C 990-09"
- (92.) 410 IAC 6-8.2-87(d), replaced "ASTM C 1644" with "ASTM C 1644-06"
- (93.) 410 IAC 6-8.2-87(d), replaced "D 1527" with "D 1527-99(2005)"
- (94.) 410 IAC 6-8.2-87(d), replaced "D 1785" with "D 1785-06"
- (95.) 410 IAC 6-8.2-87(d), replaced "D 2241" with "D 2241-09"
- (96.) 410 IAC 6-8.2-87(d), replaced "D 2282" with "D 2282-99(2005)"
- (97.) 410 IAC 6-8.2-87(d), replaced "D 2661" with "D 2661-08"
- (98.) 410 IAC 6-8.2-87(d), replaced "D 2665" with "D 2665-09"
- (99.) 410 IAC 6-8.2-87(d), replaced "D 2680" with "D 2680-01(2009)"
- (100.) 410 IAC 6-8.2-87(d), replaced "D 2729" with "D 2729-03"
- (101.) 410 IAC 6-8.2-87(d), replaced "D 2751" with "D 2751-05"
- (102.) 410 IAC 6-8.2-87(d), replaced "D 3034" with "D 3034-08"
- (103.) 410 IAC 6-8.2-87(d), replaced "F405" with "F 405-05"
- (104.) 410 IAC 6-8.2-87(d), replaced "F405" with "F 405-05"
- (105.) 410 IAC 6-8.2-87(d), replaced "F667" with "F 667-06"
- (106.) 410 IAC 6-8.2-87(d), replaced "F810" with "F 810-07"
- (107.) 410 IAC 6-8.2-87(d), replaced "C412" with "C 412-05a"
- (108.) 410 IAC 6-8.2-87(d), replaced "C4" with "C 4-04(2009)"
- (109.) 410 IAC 6-8.2-87(d), replaced "498" with "498-95"
- (110.) 410 IAC 6-8.2-87(d), deleted "(d)" replaced with "(e)"